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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/857,634	06/07/2001	Takashi Tagami	NSG-194US	5005
23122	7590	12/14/2004	EXAMINER	
RATNERPRESTIA P O BOX 980 VALLEY FORGE, PA 19482-0980			TRAN, DZUNG D	
			ART UNIT	PAPER NUMBER
			2633	
DATE MAILED: 12/14/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/857,634

Applicant(s)

TAGAMI ET AL.

Examiner

Dzung D Tran

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 08/31/01.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Specification*

1. Applicant's election without traverse of species 1 in Paper dated 11/18/2004, claims 1-3 is acknowledged.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kang US patent no. 6,268,943 in view of Terahara US patent no. 6,271,495.

Regarding claim 1, Kang discloses an optical SNR measurer in a WDM optical device having plurality optical detector (106, 108, 110, 112) for receiving light beams (CH0, CH1, CH2, ... CH<sub>n+1</sub>) from a wavelength multiplexed light beam 120, comprising:

a plurality of light-receiving elements (e.g. optical detectors 106, 108) for monitoring optical signal (abstract, col. 4, lines 45-49).

a plurality of light-receiving elements (e.g. optical detectors 110, 112) for monitoring noises (abstract, col. 4, lines 49-54), wherein the light-receiving element for monitoring optical signal and light-receiving element for monitoring noise are arranged alternately (see figures 2, 3, col. 4, lines 38-40)

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Kang differs from claim 1 of the present invention in that Kang does not specifically disclose the light-receiving elements are arranged in an array of a straight line.

Terahara discloses an apparatus for monitoring the WDM system (figure 7) having light-receiving elements array (e.g. photodiode array 54, col. 8, line 1) are arranged in a straight line the direction is the same as that of the arrangement of the demultiplexed light beams (e.g. light dispersing device 50). It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to incorporate a plurality optical detectors (106, 108, 110, 112) of Kang into an array, such as array 54 of Terahara. One of ordinary skill in the art would have been motivate to do this in order to take advantages of fact that a photodiode array has a small size, low power supply requirements, and cost, broad spectral response, low noise, ruggedness and stability. Furthermore, whether or not to arrange a plurality of photodiodes in an array of a straight line would have been within the knowledge of a person having ordinary skill in the art and would have been an obvious engineering design choice.

Regarding claim 2, Terahara further discloses the light-receiving element for monitoring optical signal and light-receiving element for monitoring noise are PIN photodiode (col. 8, line 14).

Regarding claim 3, Terahara discloses light-receiving elements array (e.g. photodiode array 54, col. 8, line 1) receive light beams demultiplexed every wavelengths (ch. 1, ch. 2, ...ch. m) are arranged in a straight line (see figure 7).

***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Chraplyvy et al. U.S. patent no. 6,580,536. Power and wavelength management for mixed rate optical data systems

b. Toughlian et al. U.S. patent no. 6,420,985. Photonic wide band analog to digital converter and method

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dzung D Tran whose telephone number is (571) 272-3025. The examiner can normally be reached on 9:00 AM - 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read "M. R. Sedighian". The signature is fluid and cursive, with the first name "M." and last name "Sedighian" clearly distinguishable.

**M. R. SEDIGHIAN**  
**PRIMARY EXAMINER**

DT

12/08/2004